



**Naval
Postgraduate
School**

**Acquisition
Research
Symposium:
Creating
Synergy
for
Informed
Change**

14-15 May 08

Advances in Acquisition Project Management

CAPABILITIES FOCUSED ACQUISITION PROCESS

—Continued—



COL Ray Jones
Project Manager,
Modular Brigade Enhancements
Program Executive Office,
Ground Combat Systems
US Army



COL Ray Jones
Program Manager,
Airborne, Maritime, Fixed Site (AMF)
Joint Program Executive Office,
Joint Tactical Radio System
OSD

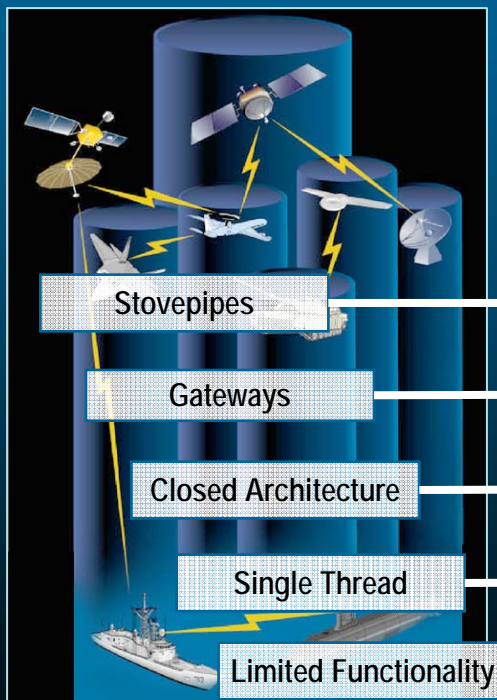
Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE MAY 2008		2. REPORT TYPE		3. DATES COVERED 00-00-2008 to 00-00-2008	
4. TITLE AND SUBTITLE Advances in Acquisition Project Management Capabilities Focused Acquisition Process				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Program Executive Office, Ground Combat Systems, Warren, MI, 48397-5000				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES 5th Annual Acquisition Research Symposium: Creating Synergy for Informed Change, May 14-15, 2008 in Monterey, CA					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 15	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			



Acquisition Objective

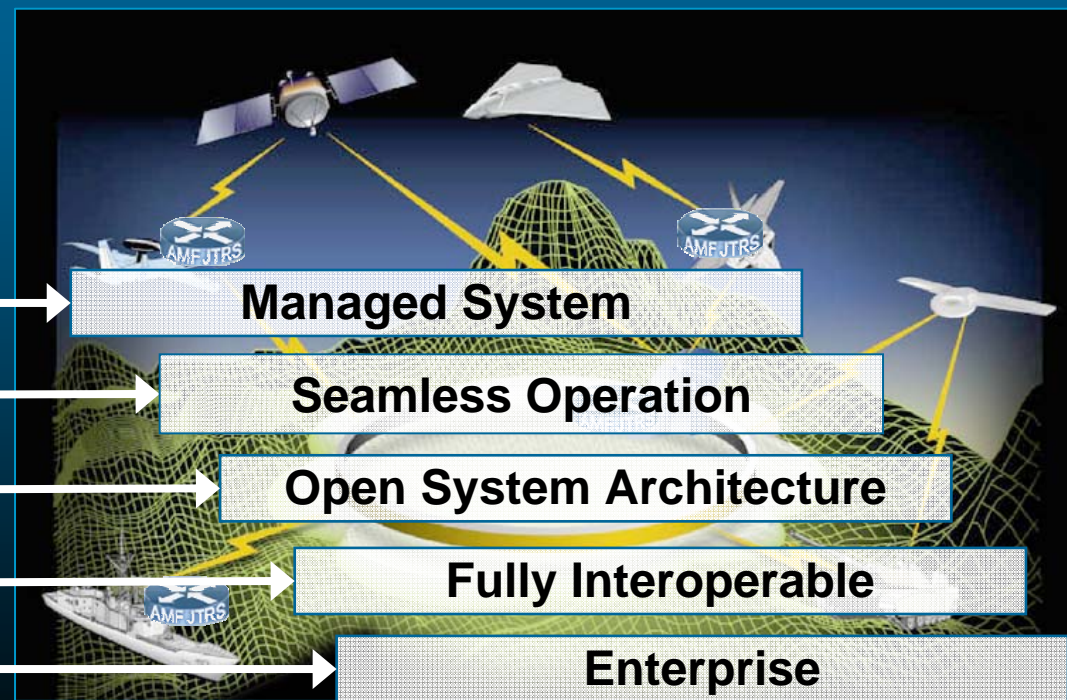
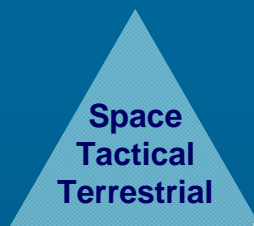
Today

*Radio (Legacy)
Platform-Centric
Datalink-Centric*



Tomorrow

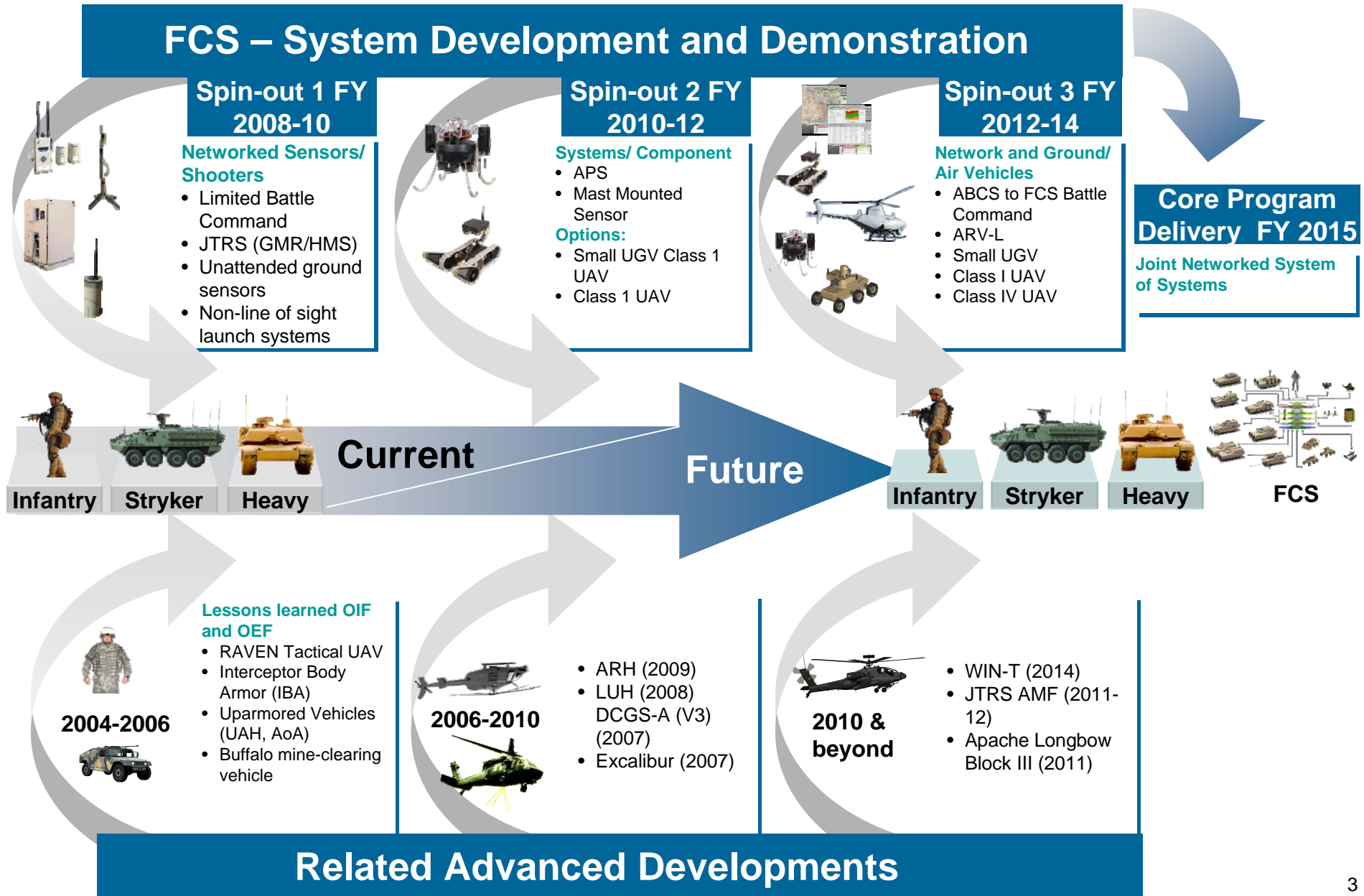
*System (Network)
Interoperable
Net-Centric*



Better Knowledge .. Better Planning .. Better Execution Better Results



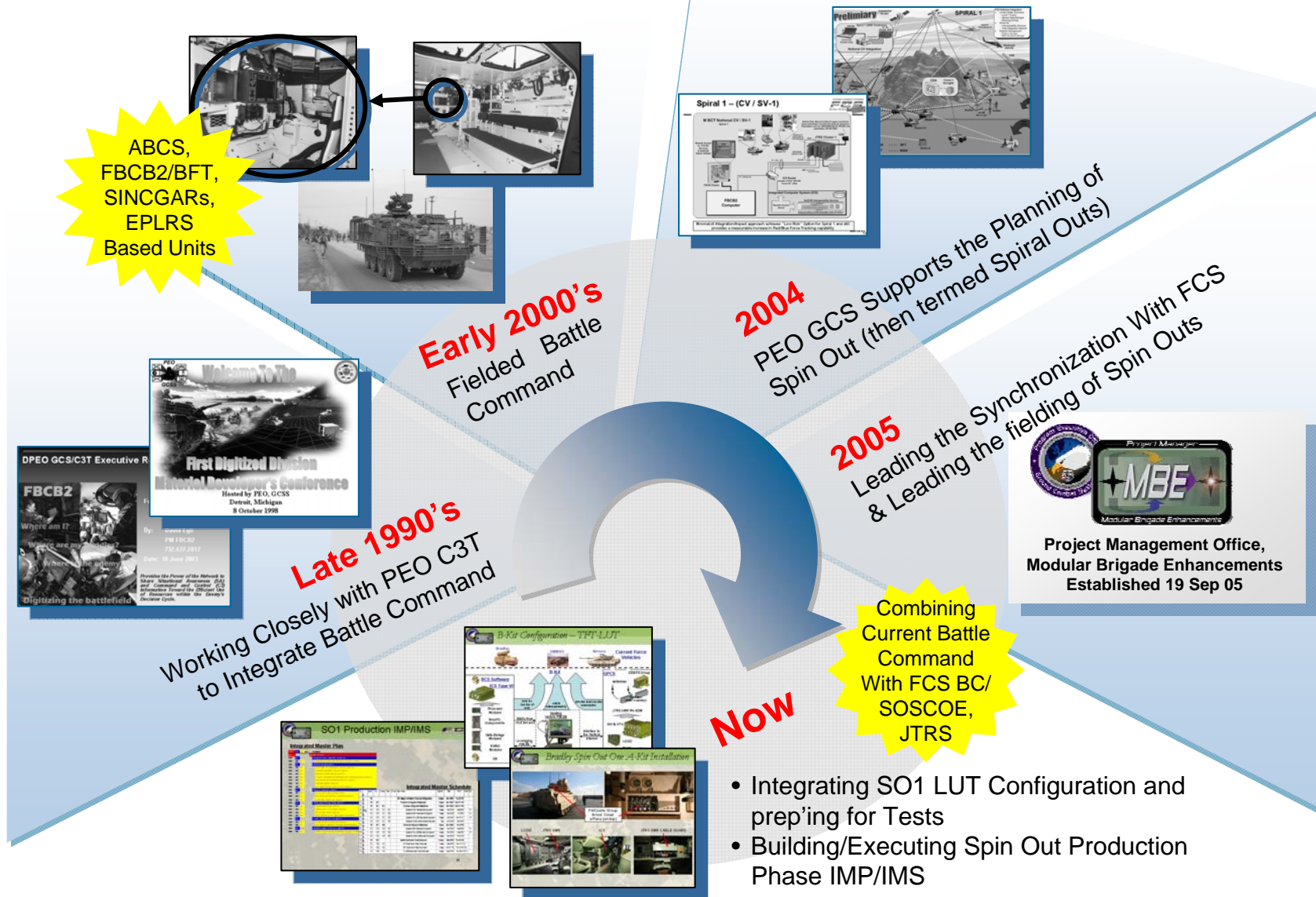
Current To Future Force through Spin-Outs





Battle Cmd/Vehicle Integration

"A Teaming Effort Success Story"



Integrating *Battle Command Systems* in a manner that maximizes the use of BC information and minimizes impact to vehicle and crew



Supporting the Army Vision Require Synchronization Modernization **WHY?**

WHAT WORKED BEFORE.....



(c) ThaiWorldView.com



- Vehicle infrastructure has remained relatively constant since the last development/improvement program
- Requirements are evolving / expanding and requires integration of new capability
 - New/Updated CDDs/CPDs under development
 - Integrating new capability adding to already strained power, space, and weight claims
- Integrating more in current vehicle configuration impacts crew and vehicle capability



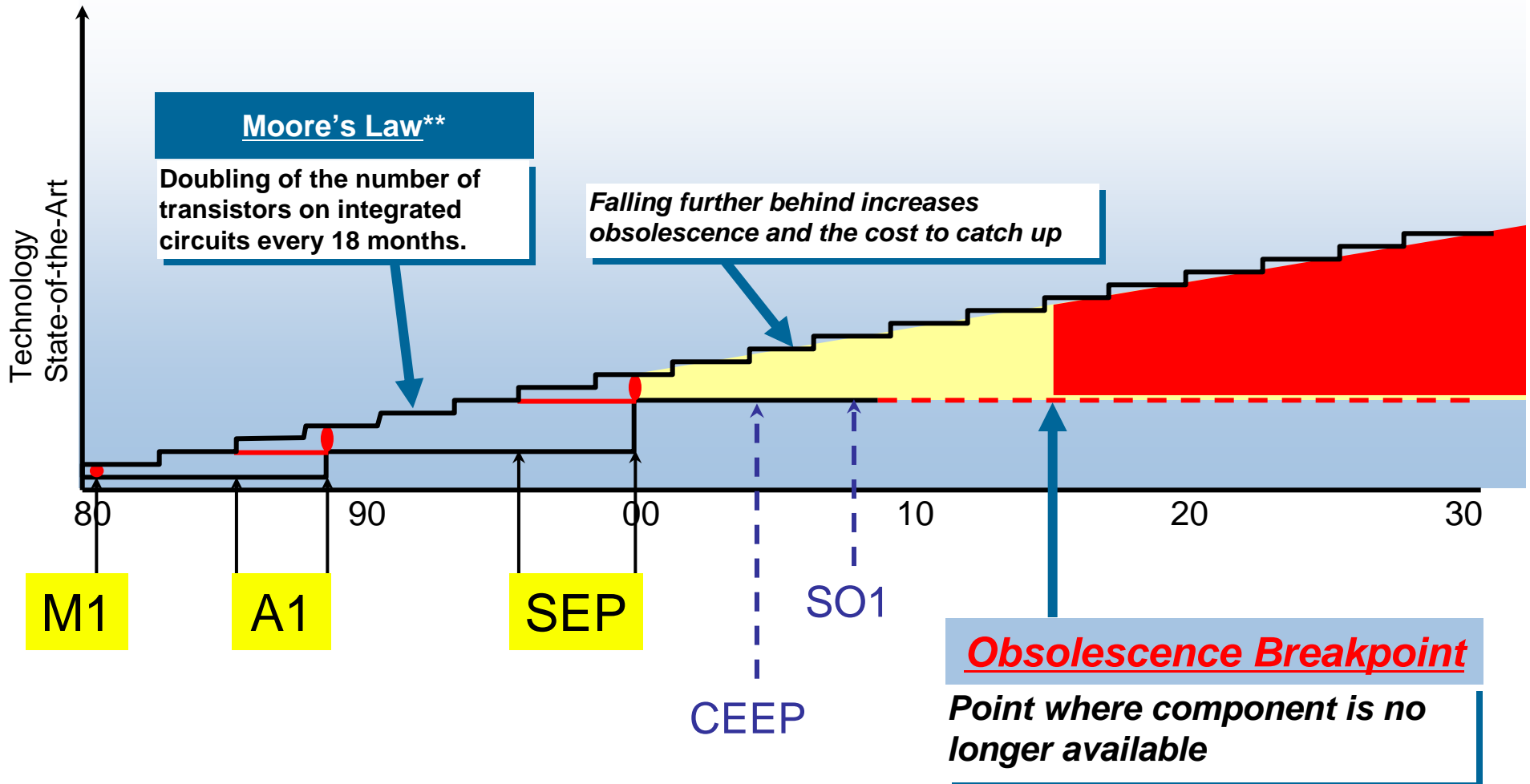
AHAJOKES.COM

...DOESN'T NECESSARILY WORK NOW!

We are at the degradation point



Obsolescence vs. Technology Advancement



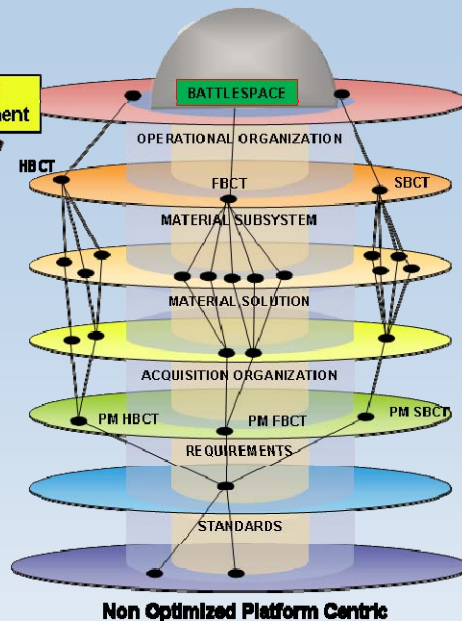
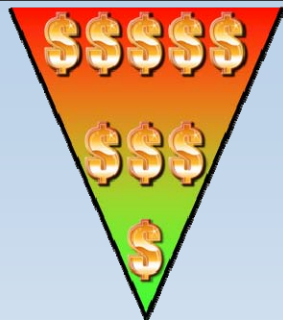
** Computer industry technology "roadmaps" predict (as of 2001) that Moore's Law will continue for several chip generations.



Capabilities Management Challenge

Multiple, independent solutions increasing burden on the unit and impacting overall capability

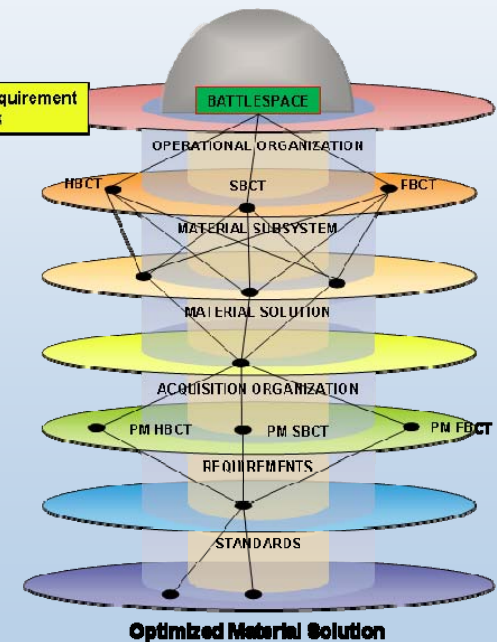
Increase Cost Due to Multiple Solutions for the Same Requirement



Optimized Solution for Same Requirement Reduces Cost and Risk



Fewer, well coordinated materiel solutions that are employed consistently across all systems & optimizing overall capability

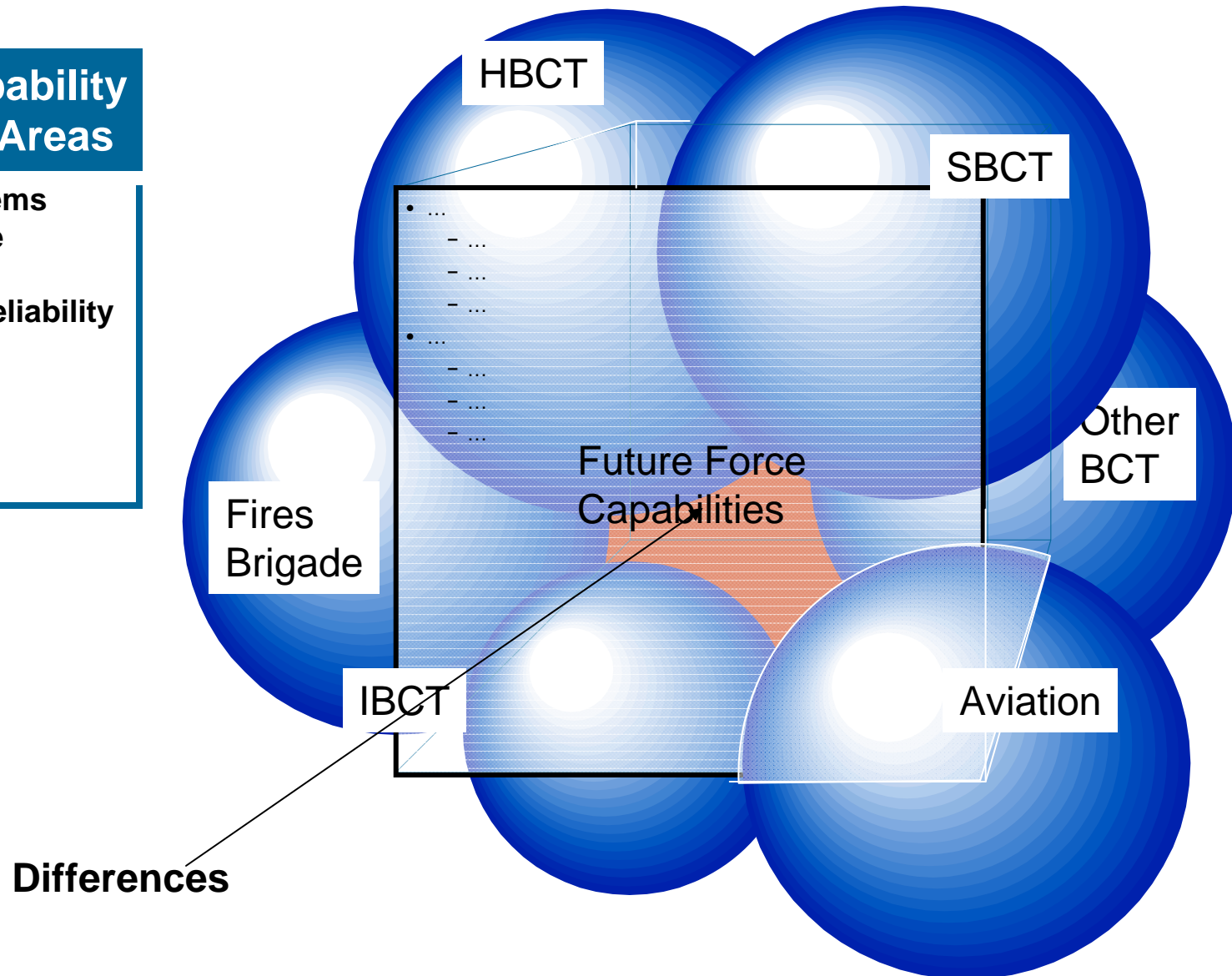




CF Needs to meet Future Force Required Capabilities

Sample Capability Difference Areas

Unmanned Systems
Networked Battle
Command
Supportability/Reliability
Survivability
Lethality
....
....

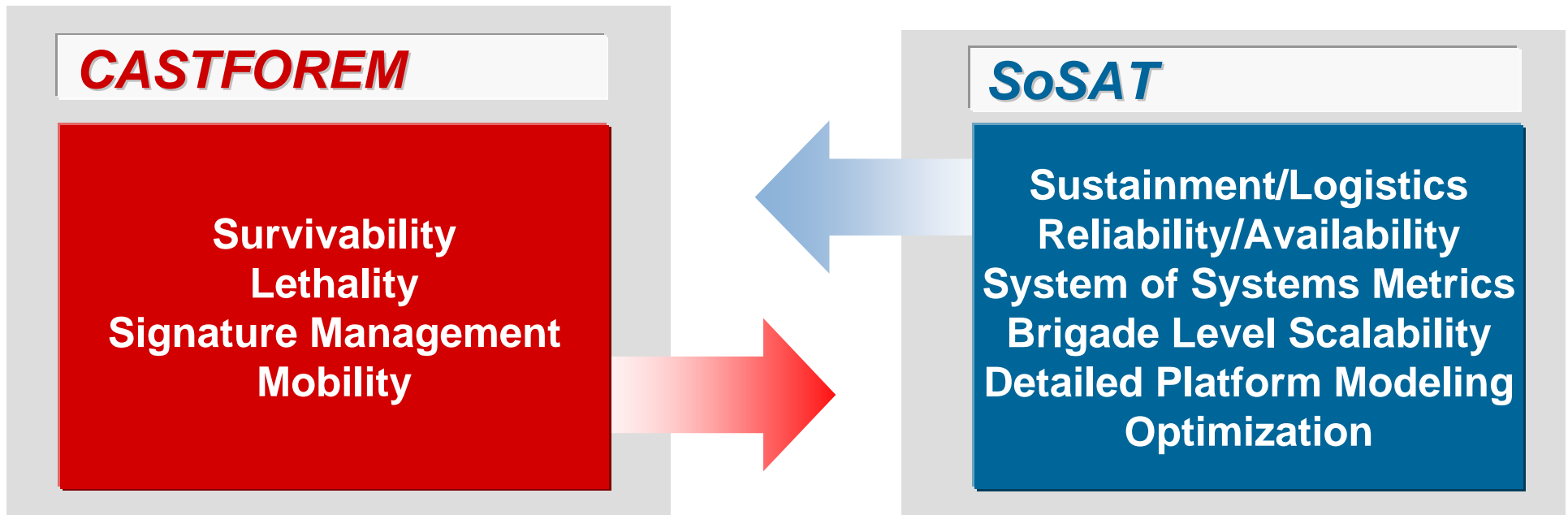




The chart displays the convergence of the 1-N algorithm. The Y-axis represents the value (0.00 to 0.06). The X-axis represents iterations (0 to 100). The legend indicates 'Remaining Weighted Gap' (blue bars) and '1-N Effectiveness' (yellow bars). The chart shows that the 1-N effectiveness is high (around 0.05) for the first 20 iterations, then drops to around 0.015, and the remaining weighted gap decreases from 0.03 to 0.015 over 100 iterations.



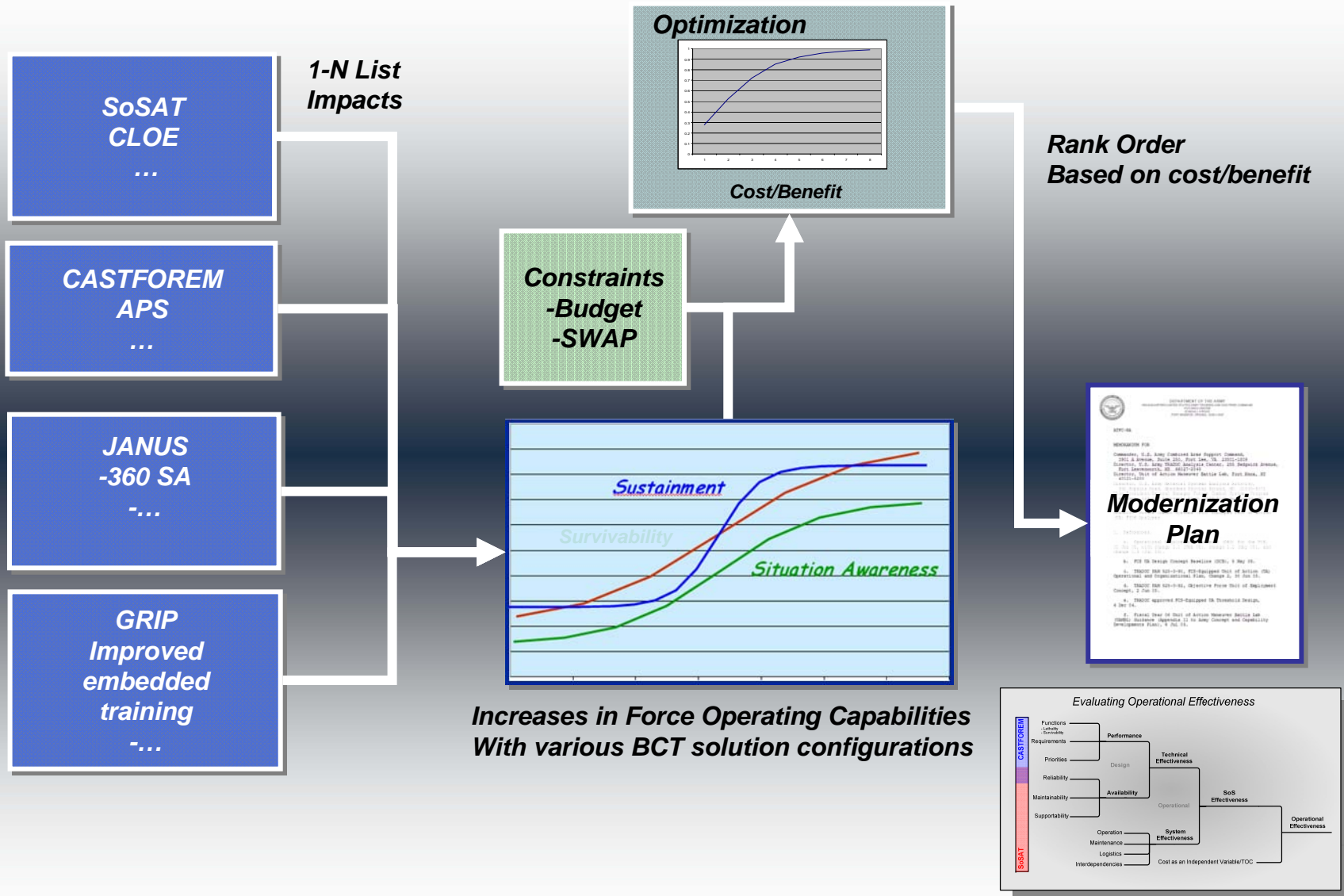
Linking SoSAT & CASTFOREM Conducting Evaluations of Alternatives to Identify Capability Gaps



- **CASTFOREM** provides **SoSAT** parameters associated with warfighting technology effectiveness
 - e.g. probability of platform/subsystem mission survival, probability of mine detection
- **SoSAT** provides **CASTFOREM** parameters associated with platform reliability and sustainment
 - e.g. downtime due to (lack of) reliability failures



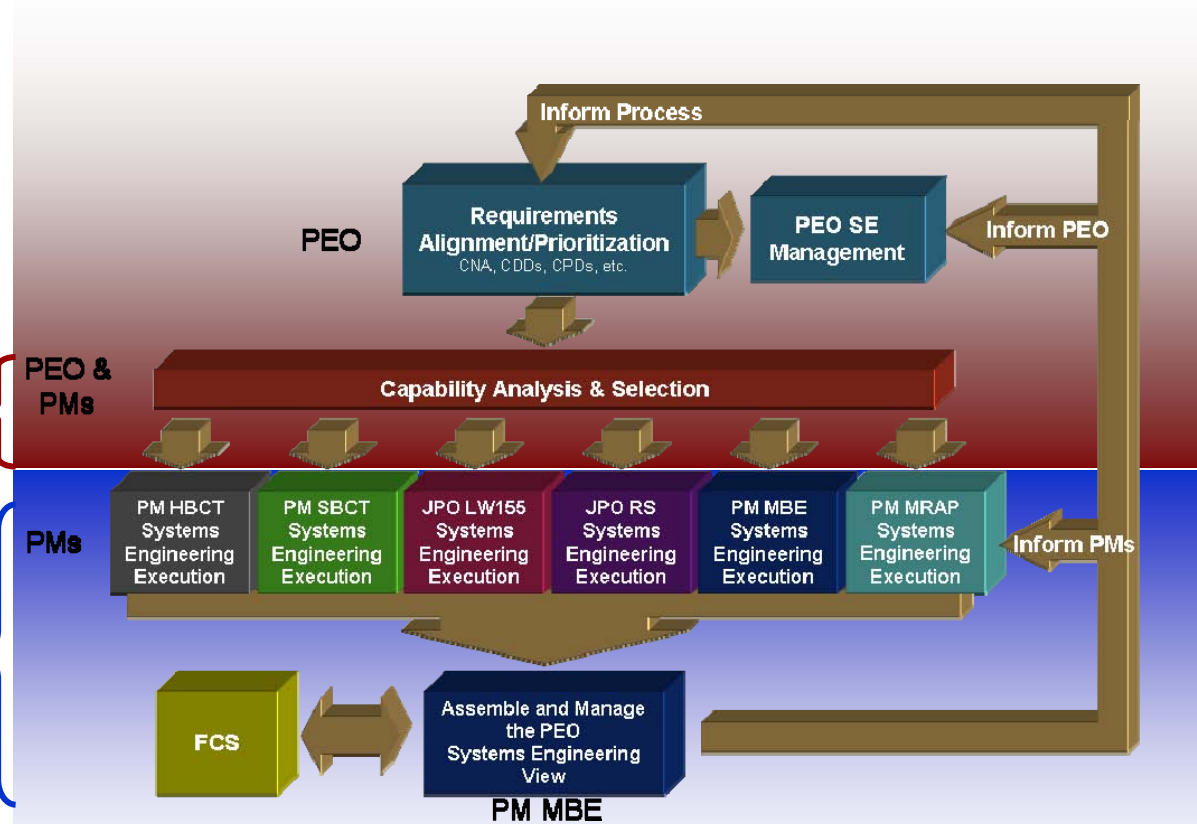
Integrated Analyses to Maximize Operational Effectiveness





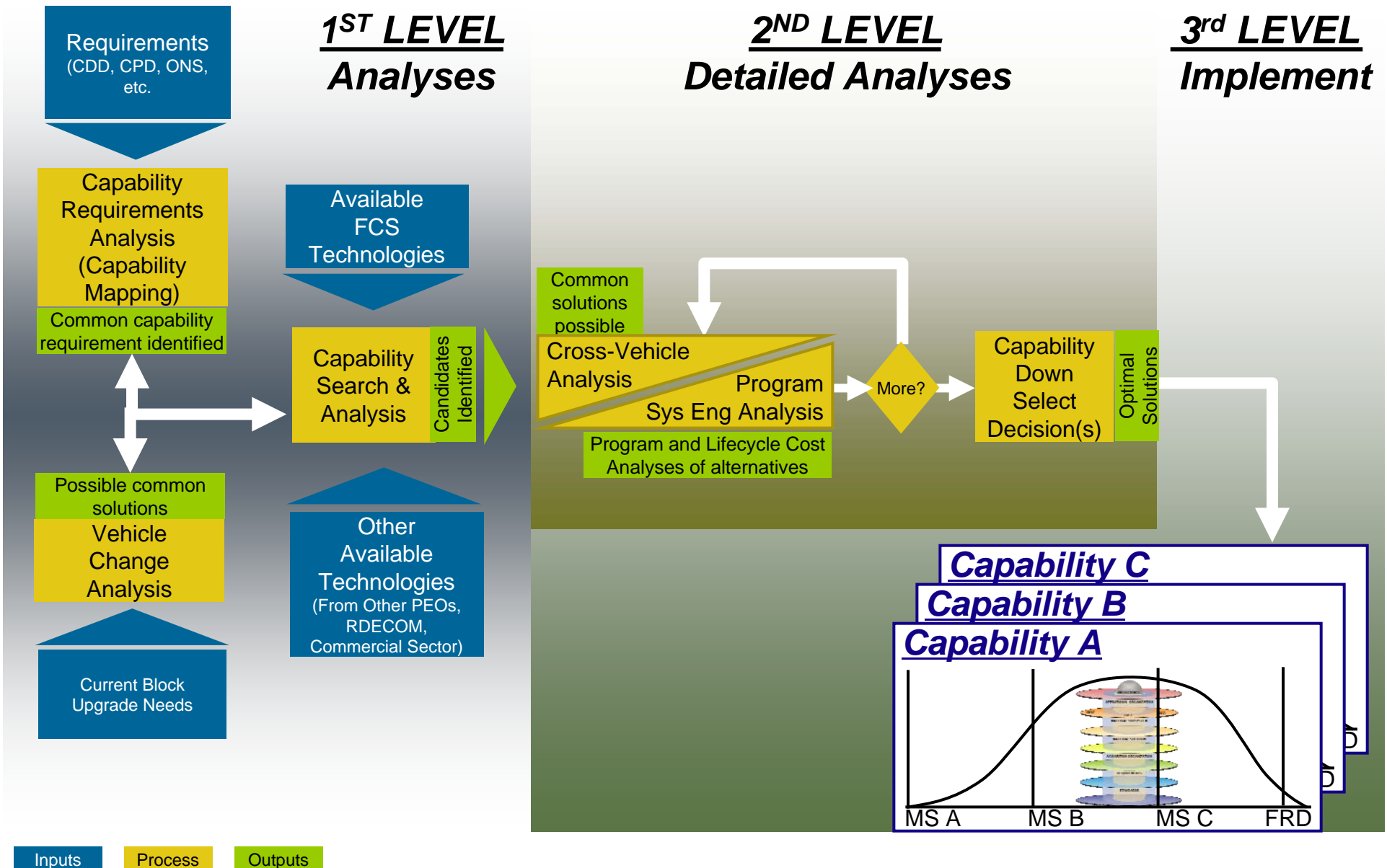
PEO GCS SE Contracted Effort

- SE Contractor brought in to support execution of efforts like this
- Focus:
 - Supporting the execution of the common capability analysis
 - Developing for the PMs and PEO the SE processes
- Benefit:
 - They will get real-life experience with this effort and be able to develop better processes, determine tools and training needs





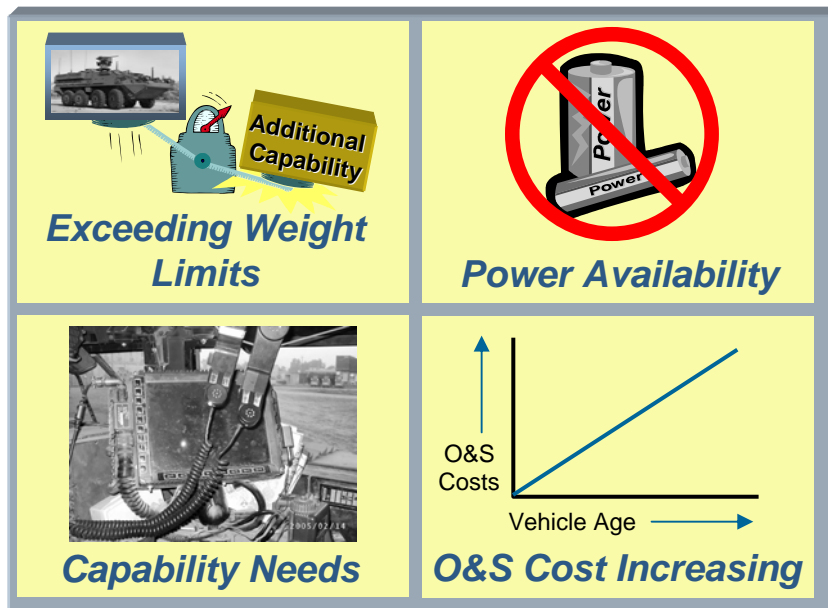
Ground Vehicle Analyses Process





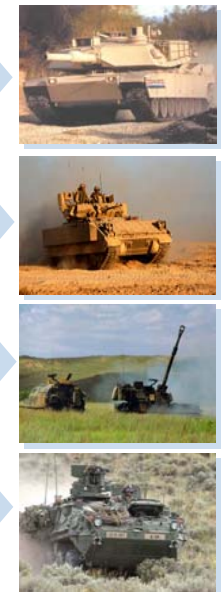
PEO GCS Modernization Tenets

Facing Common Upgrade Challenges



Opportunity for Common solutions

- Minimizing Development Costs
- Commonized Capability Across Fleets
- O&S Cost Benefits
- Increased quantities yielding procurement cost saving



Modernization Leveraging ArforGen



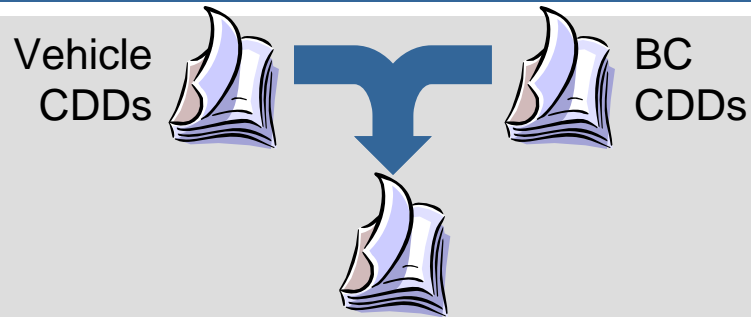


SUMMARY

Making It All Happen: “A Broad Ground Vehicle View”

Example: Programs Must Be Aligned To Enable Battle Command

Requirements Alignment



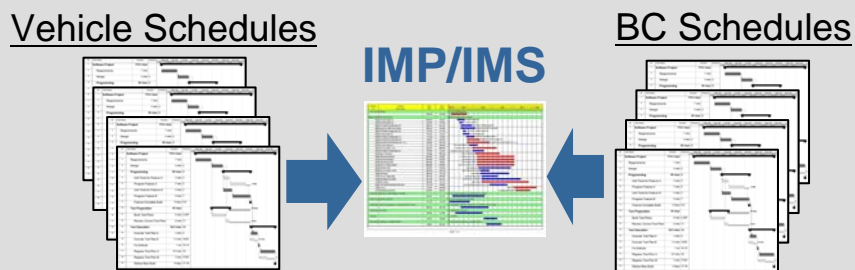
Capability/Brigade-Level Requirements Documents

Funding Alignment

BC Hardware Funded + BC Software Funded + Vehicle Integration Funded = Fielded Battle Command

Any one of these are not funded = ~~Fielded Battle Command~~

Schedule Alignment



SO1 Is Marching In This Direction

- SO1 CDD
- SO1 Production Phase IMP/IMS under development
- Funds Management Alignment

Battle Command Development and Battle Command Vehicle Integration:

Synchronization is the Key to Success